

A Business Case and Strategy for Defense Logistics Electronic Data Interchange

October 1998



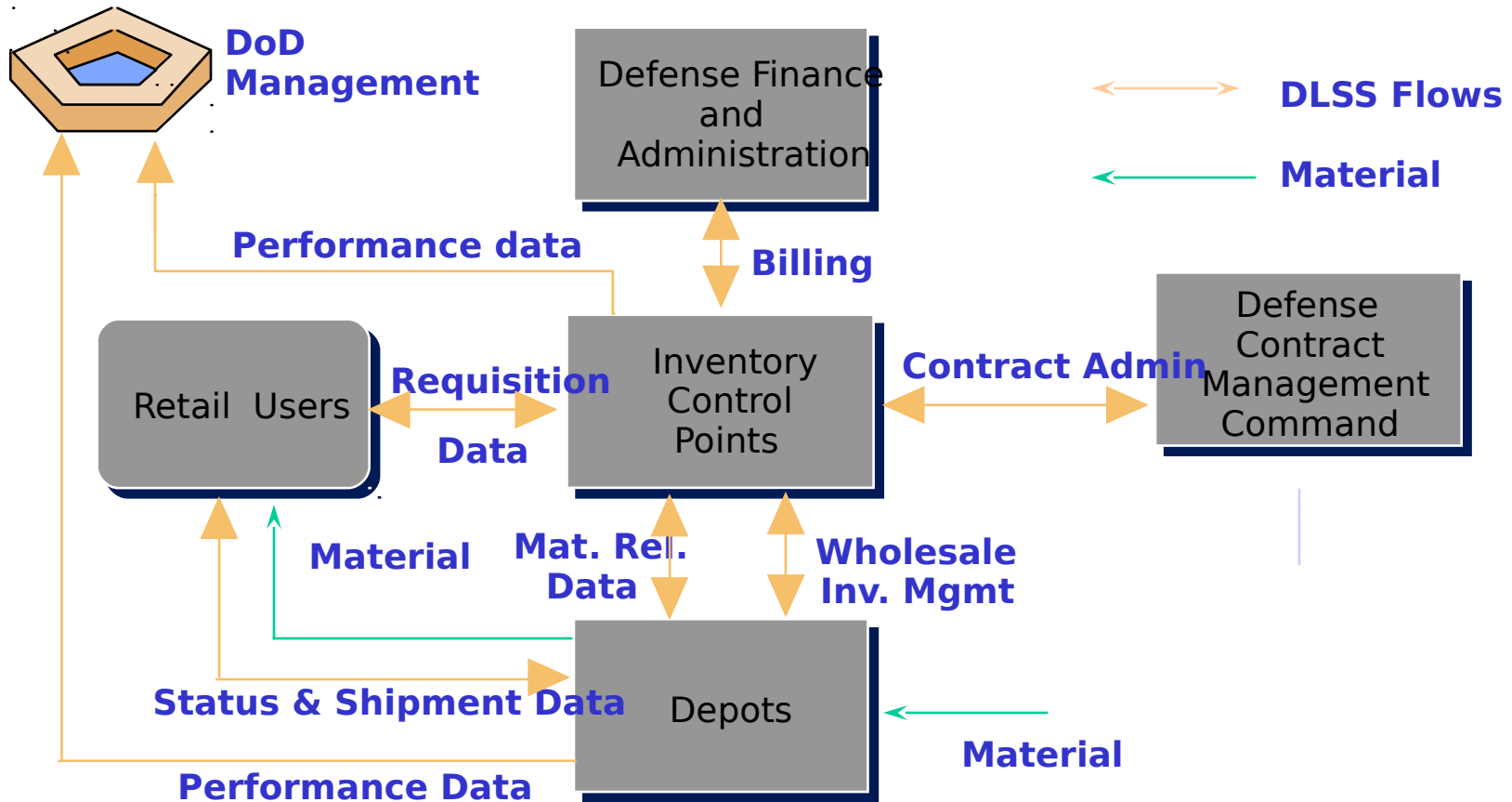
**OVERVIEW OF
DEFENSE LOGISTICS
EDI**

State of Logistics Data Exchange

- **FORMATS**
 - A mixture of proprietary DoD standards, diverse S/A unique formats, and paper
 - Not connected with other functions: procurement, transportation, maintenance
 - Inconsistent with industry usage
- **PROCEDURES** - 25+ years old; don't reflect new business rules; & often not followed
- **SYSTEMS** - 100s of legacy systems, many with formats embedded in application code
- **COMMUNICATIONS** - Mixture of outdated AUTODIN & diverse newer techniques

**THE SYSTEM IS BOTH INEFFICIENT
& INHIBITS MODERNIZATION**

DLSS Environment



Transactions and procedures linking DoD logistics systems
Approximately 2 billion exchanges a year

Problems in the Current Environment

- **Fixed-length records constrain expanding data requirements**
- **S/As developed unique exchanges to by-pass DLSS limitations, increasing overall process costs**
- **Formats embedded in older systems, inhibiting modernization**
- **DoD proprietary format inhibiting commercial partnerships**

Defense Logistics Management System

DLMS replaces the DLSS with ANSI X12 EDI formats which are:

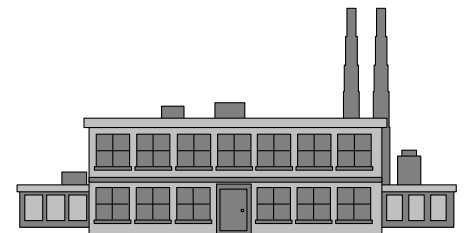
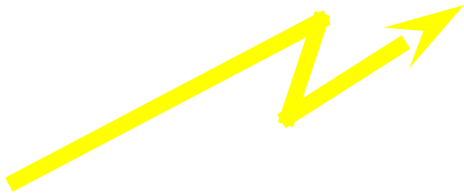
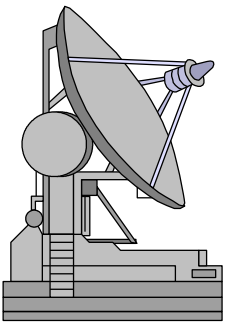
- Variable-length, can support expanding DoD requirements**
- Non-proprietary national standards**
- Widely used in government and industry**
- Aligned with other DoD efforts including finance, transportation and procurement**
- Step towards DoD open systems goals**

Is This Simply Substituting One Format for Another?

- **ONLY IF** - We do not incorporate already identified or new enhancements/initiatives with the change-over
 - **YES, BUT**
 - This format will allow us to connect to commercial trading partners without major reprogramming on their part.
 - It will separate systems from format and promote incremental modernization
- Not moving forward leaves the DLSS as the baseline for any BPR or ADP system modernization**

ANSI X12 EDI

A Commercial Standard



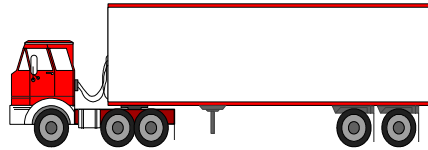
American National Standards Institute (ANSI)

- **Independent non-profit standards body**
- **Represents US in international standards**
- **Open to anyone**
- **Federal government participates in ANSI - but does not manage it**
- **Manages many standards through accredited standards committees (EDI is ASC X12)**
- **First ANSI EDI standards established in 1978**

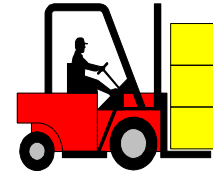
X12 In Industry



Automotive



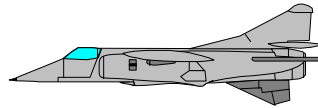
Transportation



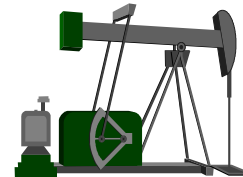
Public Warehousing



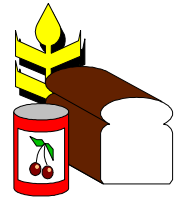
**Medical-
Pharmaceutical**



Aerospace/Defense



Petroleum



Grocery

- **EDI is used by more than 95% of America's Fortune 1000 companies**
- **EDI is key component of many BPR initiatives such as Just-in-time inventory, direct vendor delivery, and supplier managed inventory**

Selected X12 Transaction Sets

Engineering & Management

806 Project schedule reports
839 Project cost reporting
841 Technical information

Purchasing

805 Contract Pricing Proposals
251 Pricing Support
832 Price catalog
836 Contract/award
840 Request for quotation
843 Quotation
850 Purchase order (P.O.)
855 P.O. acknowledgment
860 P.O. change
865 P.O. change Ack.
888 Item maintenance

Supply Management

511 Requisition
517 Material obligation validation
527 Material due-in and receipt
536 Logistics reassignment

Contract Management

561 Contract abstract
567 Contract completion status
568 Contract payment Management Report

Manufacturing

830 Planning schedule
844 Product transfer
846 Inventory inquiry
849 Product transfer info.

861 Receiving advice
866 Production sequence
867 Product transfer
869 Order inquiry
870 Order status report

Quality

842 Nonconformance reports
848 Safety data (MSOS)
854 Shipment delivery discrepancy
863 Test results
920 Loss or damage claim
925 Claim tracer

Transportation

853 Routing and courier instructions
856 Ship notice/manifest
857 Ship notice
858 Shipment information

Warehouse Activity

940 Shipping order
945 Warehouse shipping advice
947 Warehouse inv. adjustment advice

Finance

810 Invoice
812 Credit/Debit adjustment
819 Expense statement
820 Payment order
821 Financial reports
822 Account analysis
825 Payment status
827 Financial returns/Notice
828 Debit authorization
829 Cancel payment

All

824 Application advice
838 Trading partner profile
864 Text message
868 Electronic form structure
996 File transfer
997 Functional acknowledgment

Education

130 Student Educational Record (S.E.R.)
131 S.E.R. Acknowledgment
146 Request for S.E.R.
147 Resp. to Request for S.E.R.
135 Student Loan Application
139 Student Loan Guarantee Result
144 Student Loan Transfer & Status Verification
191 Student Loan Preclaims Assistance & Claims
188 Ed. Course Inventory
189 Application for Admission to Ed. Institutions
190 Student Enrollment Verification

Other Business Processes

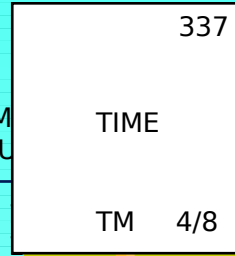
Customs
Health Insurance/Claims
Tax Reporting
Grants
Real-estate Sale and Mortgages
Court Actions

EDI Structure - Illustration

511 REQUISITION

TABLE 1

POS. NO.	SEG. ID.	NAME	REQ. DES.	M U
010	ST	TRANSACTION SET HEADER	M	
020	BR	BEGINNING SEGMENT FOR MAT. MAN.	M	
030	G62	CONTACT	O	3
040	NTE	NOTE/SPECIAL INSTRUCTION	O	10
050	LM	CODE SOURCE INFORMATION	O	1



LOOP REPEAT

Data element

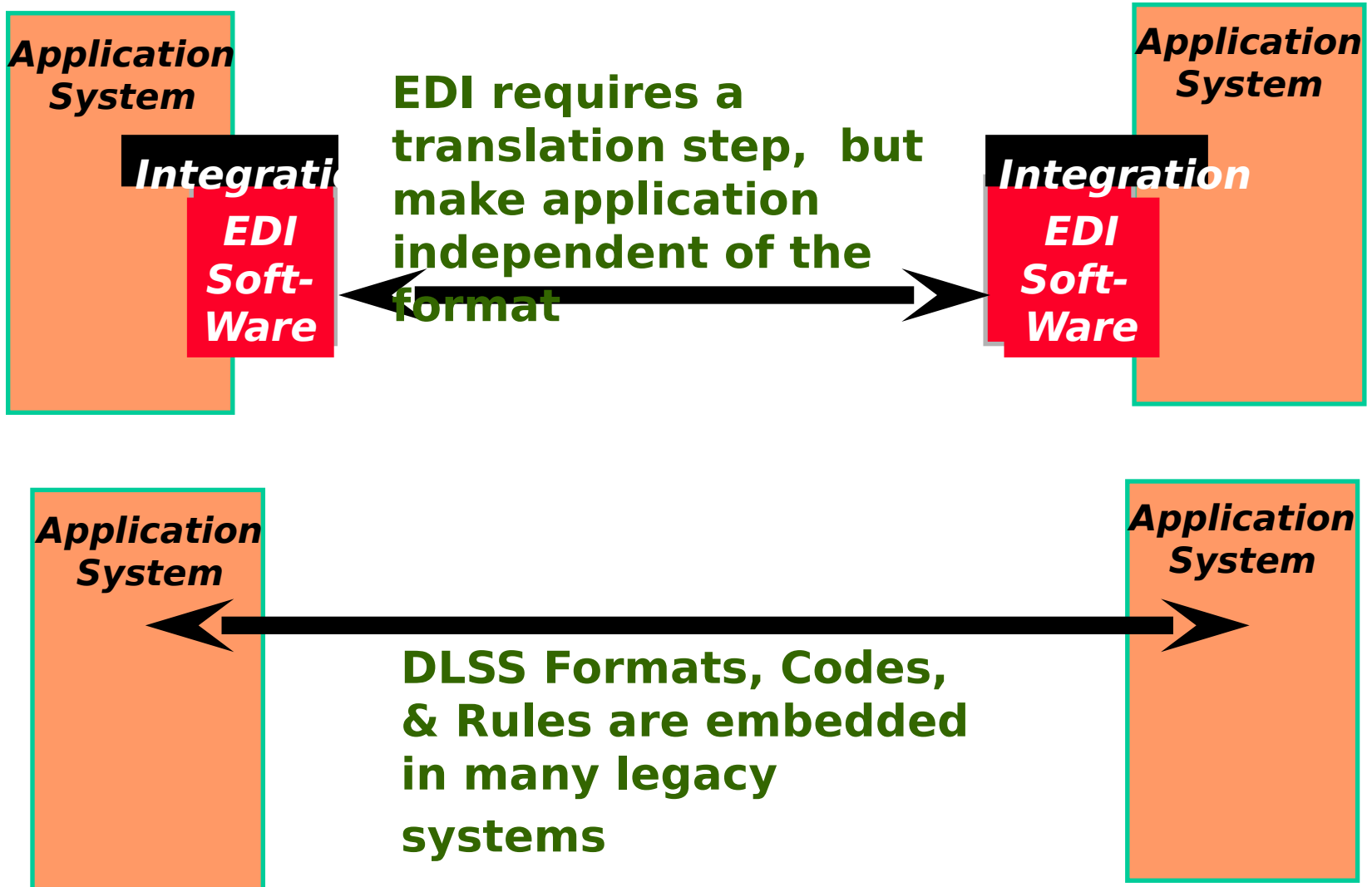
	G6201	432	G6202	373	G6203	176	G6204	337	G6205	623	G6206	624	
G62*	DATE QUALIFIER		DATE		TIME QUALIFIER		TIME		TIME CODE		CENTURY		@
	X	ID 2/2	X	DT 6/6	X	ID 1/2	X	TM 4/8	O	ID 2/2	O	NO 2/2	

Segment

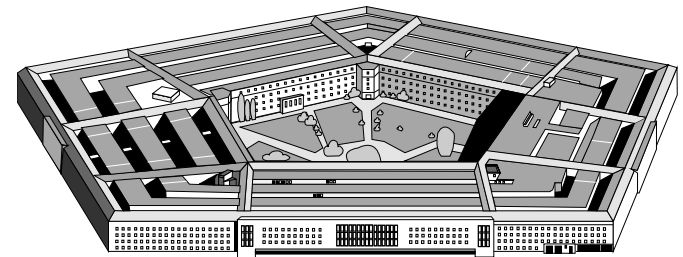
020	N9	REFERENCE NUMBER	M			
030	PO1	BASELINE ITEM DATA	O	>1	PO1/>1	NTE
040	AT	FINANCIAL ACCOUNTING	O	2		
050	PWK	PAPERWORK	O	1		
060	DD	DEMAND DETAIL	O	100		
070	GF	FURNISHED GOODS AND SERVICES	O	1		
080	G62	DATE/TIME	O	20		
090	MAN	MARKS AND NUMBERS	O	5		
100	LIN	ITEM IDENTIFICATION	O	1		
105	MEA	MEASUREMENTS	O	5		NTE
...						

Transaction set

DLSS vs EDI Processing



EDI IN THE FEDERAL GOVERNMENT



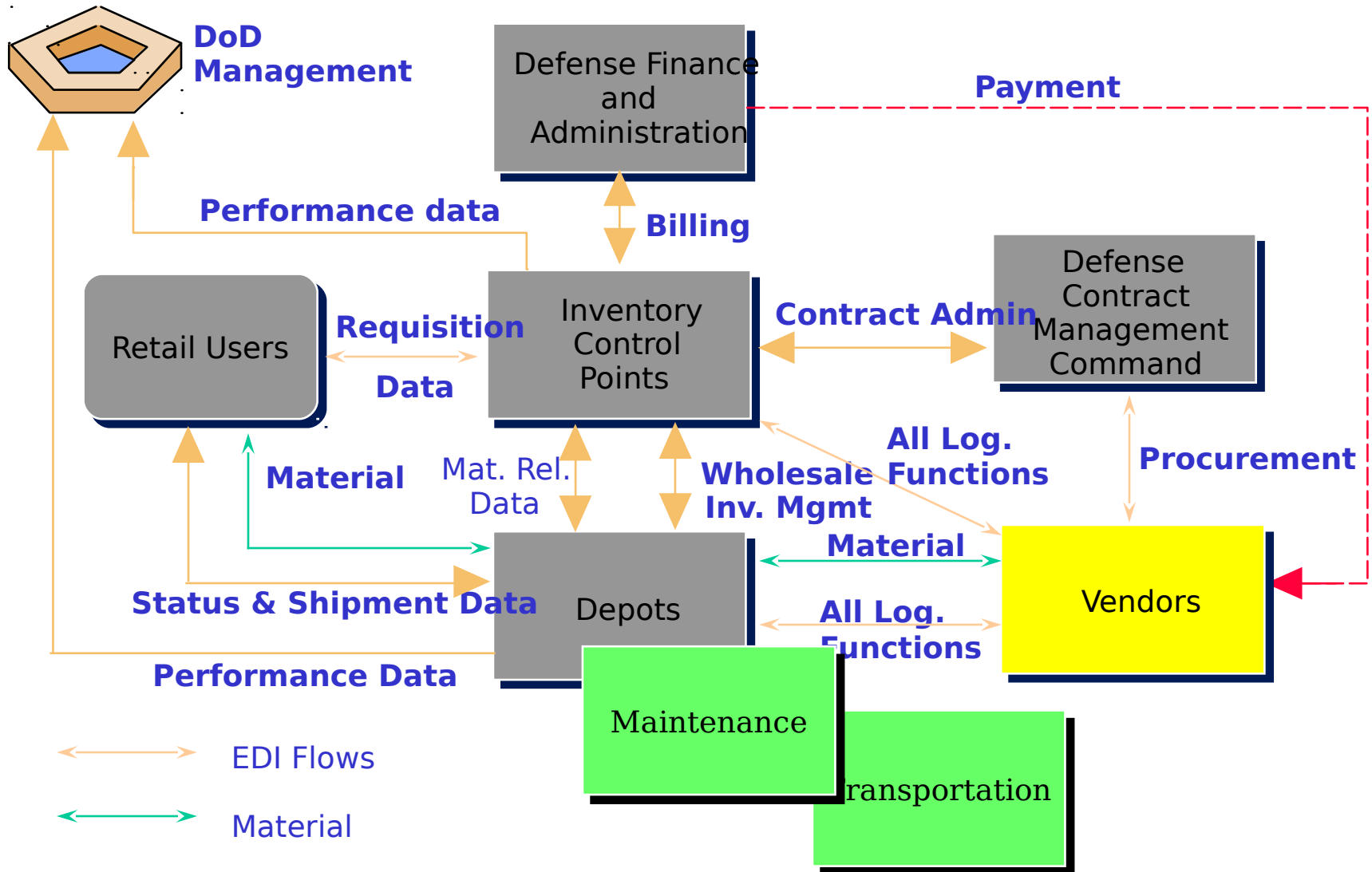
Evolution Of Fed/DoD EDI Policy

- **FIPS 161-2 specifies X12 & EDIFACT for agency use**
- **DMRD 941 Key documents to be implemented - 1992**
- **NPR identified EDI as a key to reinventing govt. - 1993**
- **Presidential Memorandum - EDI in procurement streamlining - 1993**
- **Federal Acquisition Streamlining Act (FASA) - 1994**
- **JECPO creation - 1998**
- **DRID 48 - 1998**
- **EB/EC Policy & Guidance Memorandum and Strategic Plan - 1999**

Selected EDI Projects

- **Standard Procurement System (SPS) plus legacy S/A systems**
- **DLA - Prime Vendor programs**
- **DFAS - Commercial and transportation invoices and GBLs**
- **DCMC - Progress payments & material inspections and receiving reports**
- **DECA - Price catalogs**
- **Many civil agency implementations including, GSA, VA, EPA, Customs, and Treasury**

DLMS Environment



DLMS Status

- **DLMS procedure manuals in-place**
- **24 X12 transaction sets utilized**
- **55 ICs already developed that:**
 - **Replace existing DLSS functionality**
 - **Support many enhancements**
 - **Are Approved Federal standards**
- **DAASC EDI translation & DLSS/DLMS conversion capability in place**
- **User documentation being developed**

Ready to begin implementation

SAMPLE ENHANCEMENTS

- **Unique item (serial/lot number) tracking (UIT)**
- **Weapon system identification & demand**
- **Electronic requisitions for nonstandard material**
- **Multi-line transactions**
- **Electronic discrepancy reporting**
- **Complete cost accounting data**
- **Summary contract and packaging information**
- **Data streamlining**
- **Multiple and clear text addressing**
- **Support for Total Asset Visibility Program**

More than 100 S/A & OSD suggested enhancements are incorporated

Implementation Issues

- **Determine order and methodology for system conversion from DLSS to EDI**
- **Determine order and timing of incorporating existing and new enhancements & initiatives**
- **Evaluate and incorporating S/A unique data and transactions**
- **Define policies & procedures for operations in an EDI environment**

Conclusion

DoD needs a better means to exchange critical logistics data for new initiatives, new data, and new technology to support its operational forces as defined by *Joint Vision 2010*. EDI is a proven and effective means for machine-to-machine data exchange.

